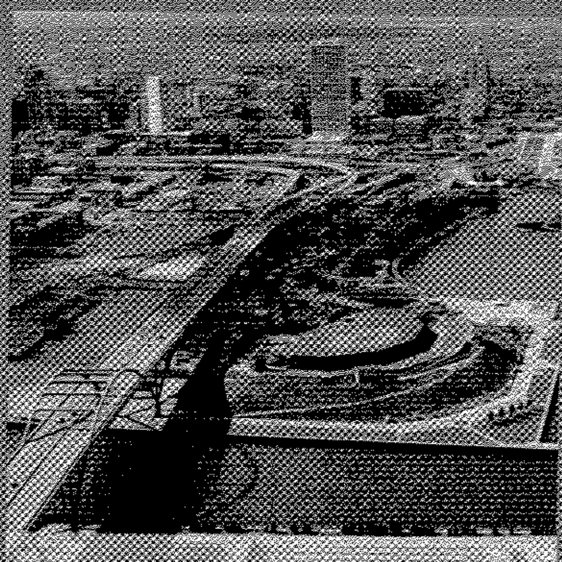
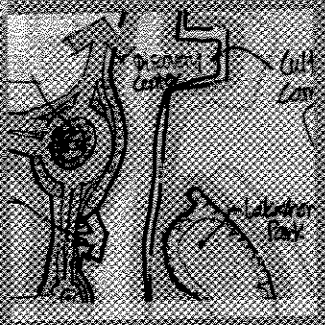


BRIDGE o
harbor

design sketchbook

HNTB

Introduction

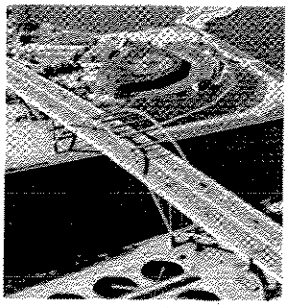


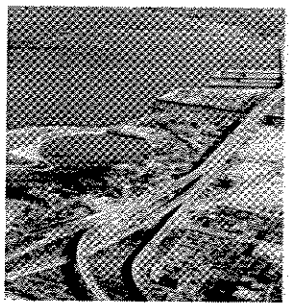
BRIDGEo_
harbor

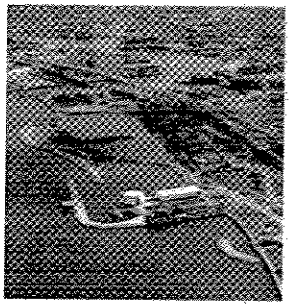
design sketchbook

HNTB

Introduction







The Hoan Bridge and I-794 connect the south side of downtown Milwaukee to the Lake Parkway. The roadway is elevated for about 2.5 miles as it traverses Jones Island, which contains a Milwaukee Metropolitan Sewerage District treatment plant and the Port of Milwaukee facilities.

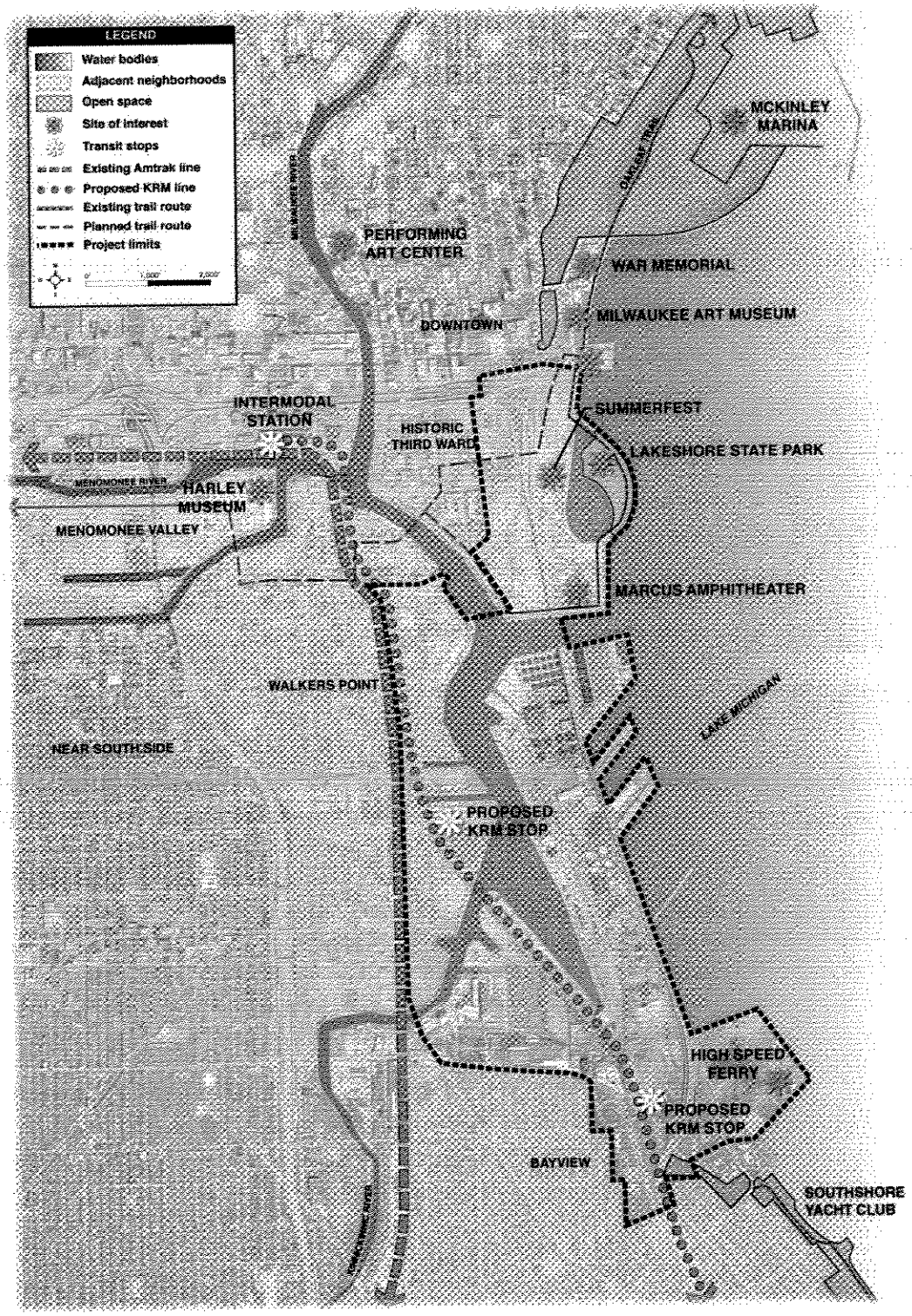
Originally intended as a lakefront interstate link between Milwaukee and Chicago, this transportation facility is now oversized for its current and projected traffic capacity because the Interstate system was never completed to the south of this I-794 segment. However, the right of way was preserved, and in 1999 WisDOT completed the at-grade Lake Parkway to connect I-794 to communities south of Milwaukee. The portion of the roadway that remains designated as I-794 south of the Hoan Bridge, which provides access to and from the Port of Milwaukee, was also built to Interstate standards and has exceedingly complex and land-intensive ramps.

The elevated roadway has had major maintenance issues during the past several years, and WisDOT needs to replace the deck and make structural repairs to the Hoan Bridge in the near future. Initial conversations with WisDOT have revealed an opportunity to explore alternative bridge and roadway configurations to create a roadway that meets appropriate capacity needs and opens up land for development and public use. Alternative roadway scenarios focus on downgrading the roadway from a freeway to an at-grade, four-lane boulevard. The merits of this scenario include far simpler and less costly maintenance, and easier, less land-intensive connections to local roads.

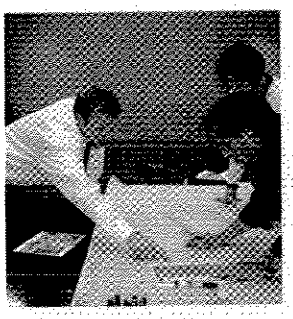
Contextually, the Hoan Bridge corridor between downtown Milwaukee and Bay View is in a very desirable area. The 2.5 miles of property along Lake Michigan is prime real estate and an important public resource. Some of the port properties have become underutilized, although portions remain active. Considerable portions of Jones Island are being used for bulk outdoor storage, and some areas are vacant. Conversely, the adjacent Third and Fifth ward neighborhoods, as well as Bay View, have seen tremendous redevelopment activity. Significant residential redevelopment – in the form of mid-rise condos – has been constructed, and many new retail and entertainment venues have emerged to serve the new population. In short, the areas surrounding the Hoan Bridge could be reused for higher and better land uses and provide a link between the public lands to the north and the south of the harbor.

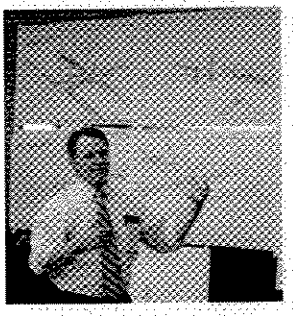
The following graphic shows the Hoan Bridge and the Jones Island areas in the context of downtown Milwaukee and adjacent neighborhoods.

Local Context



Project Charrette





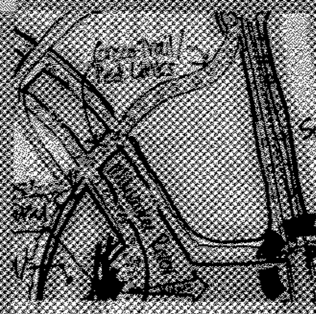
HNTB convened a team of bridge and transportation engineers, transportation planners and urban designers to explore a new bridge and roadway system and conceptual land use concepts for the harbor area.

During an intensive design charrette, the team explored two extremely divergent land use and transportation scenarios. One concept maximizes waterfront land for the public good, **and a second concept maximizes private development opportunities. These extreme concepts** provide a basis for future discussions among various stakeholder groups to ultimately blend common objectives.

The charrette also involved evaluating the feasibility of redesigning the Hoan Bridge as a lower structure that is as visually striking as the existing bridge. Additionally, the team examined two alternative boulevard layouts that accomplish local access, context sensitivity **and access management. Finally, the team quantified in general order the economic** development potential of the land use concepts.

Input from multiple agencies, the public and the private sector is crucial and will be obtained before any redevelopment strategies or decisions on such regional infrastructure are made.

Design Assumptions



BRIDGE o

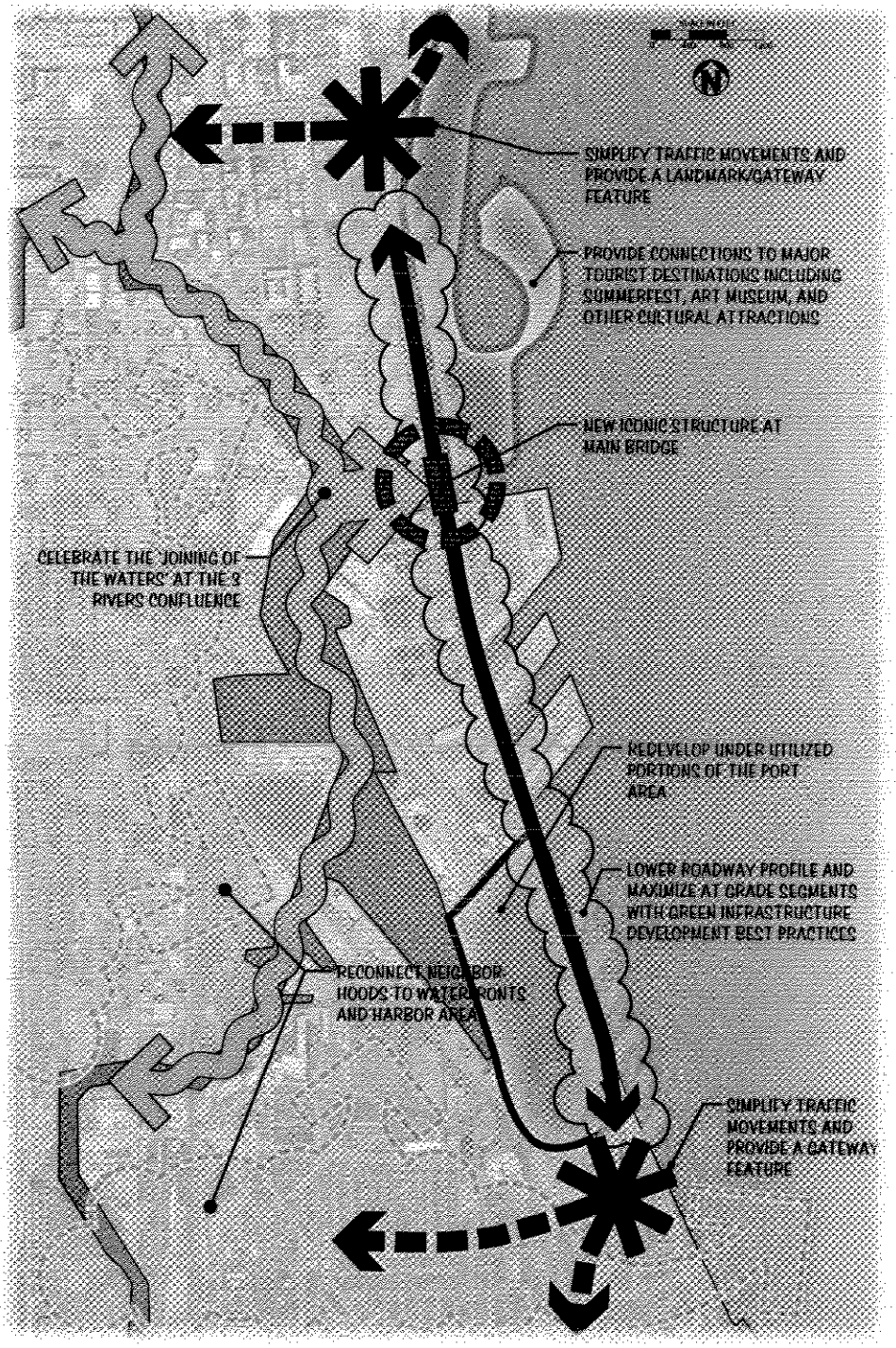
harbor

design sketchbook

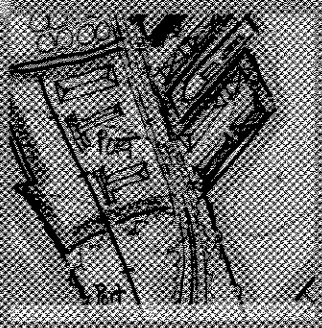
HNTB

Design Assumptions

In creating two different development scenarios, some common underlying assumptions were made. These design assumptions are illustrated on the graphic below:



Concept Development



BRIDGE to harbor

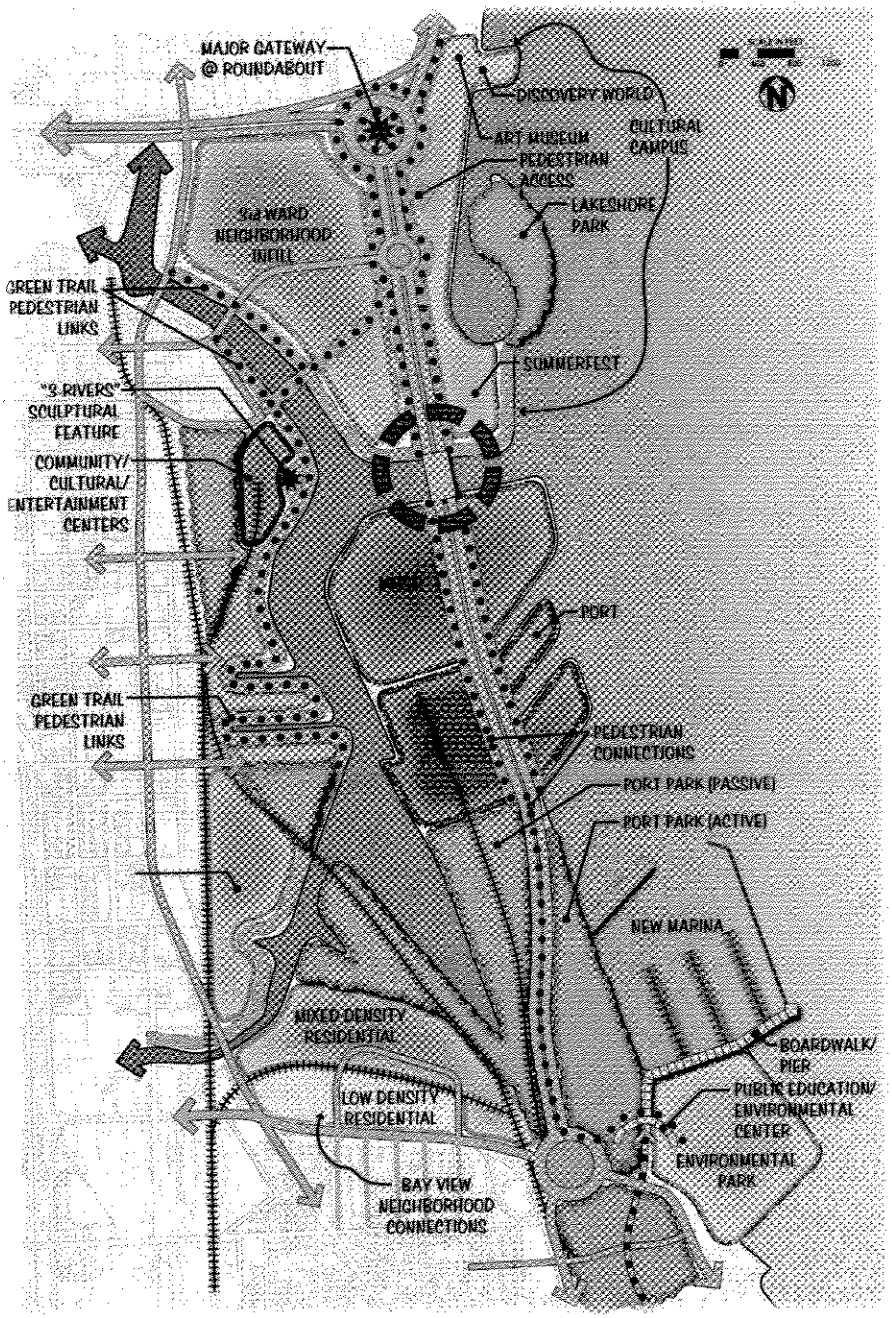
design sketchbook

HNTB

Concept A: Maximizing Public Benefit

Major design elements:

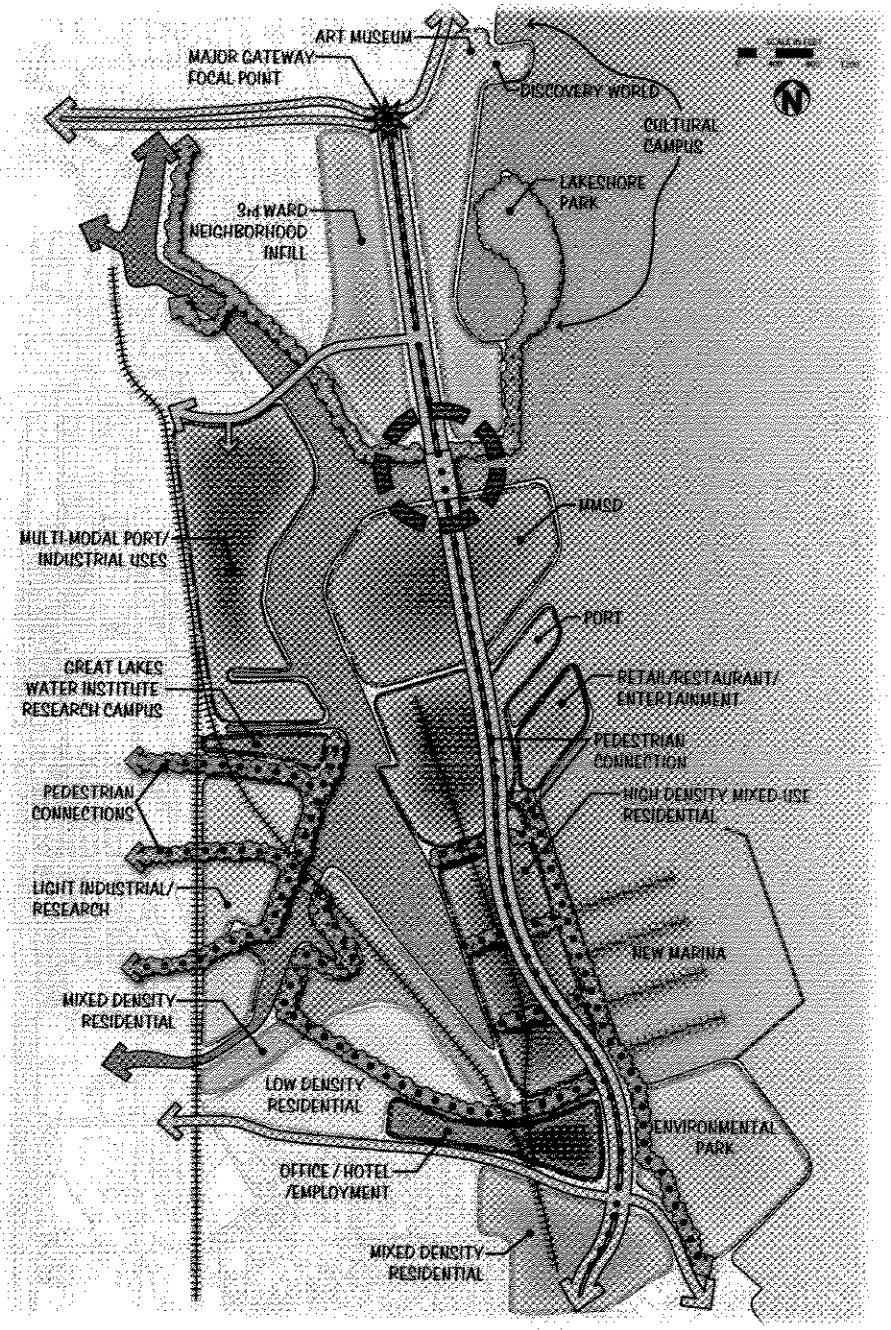
- Emphasis on maximizing public access to all waters (lake and rivers)
- Emphasis on environmental theme
- Creation of major public port park on Lake Michigan
- Connectivity to neighborhoods/downtown
- Creation of monumental celebratory space at **confluence point of Lake** Michigan and three rivers



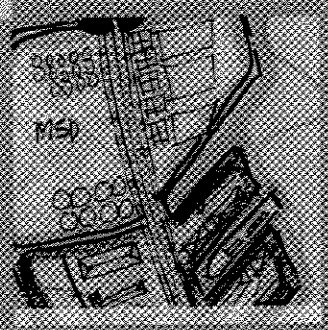
Concept B: Maximizing Development Opportunity

Major design elements:

- Consolidate port uses to create new lands for redevelopment
- Multi-modal port/ industrial campus (water/rail/roadway)
- Expansion of Great Lakes Water Institute into environmental research campus
- Intensive high-rise condo subarea along lakefront
- Wharf townhouse/mid-rise subarea
- Reuse of portions of port pier into "Milwaukee Entertainment Pier"
- **Road reconfiguration to** create surplus land for redevelopment



Illustrative Development Design



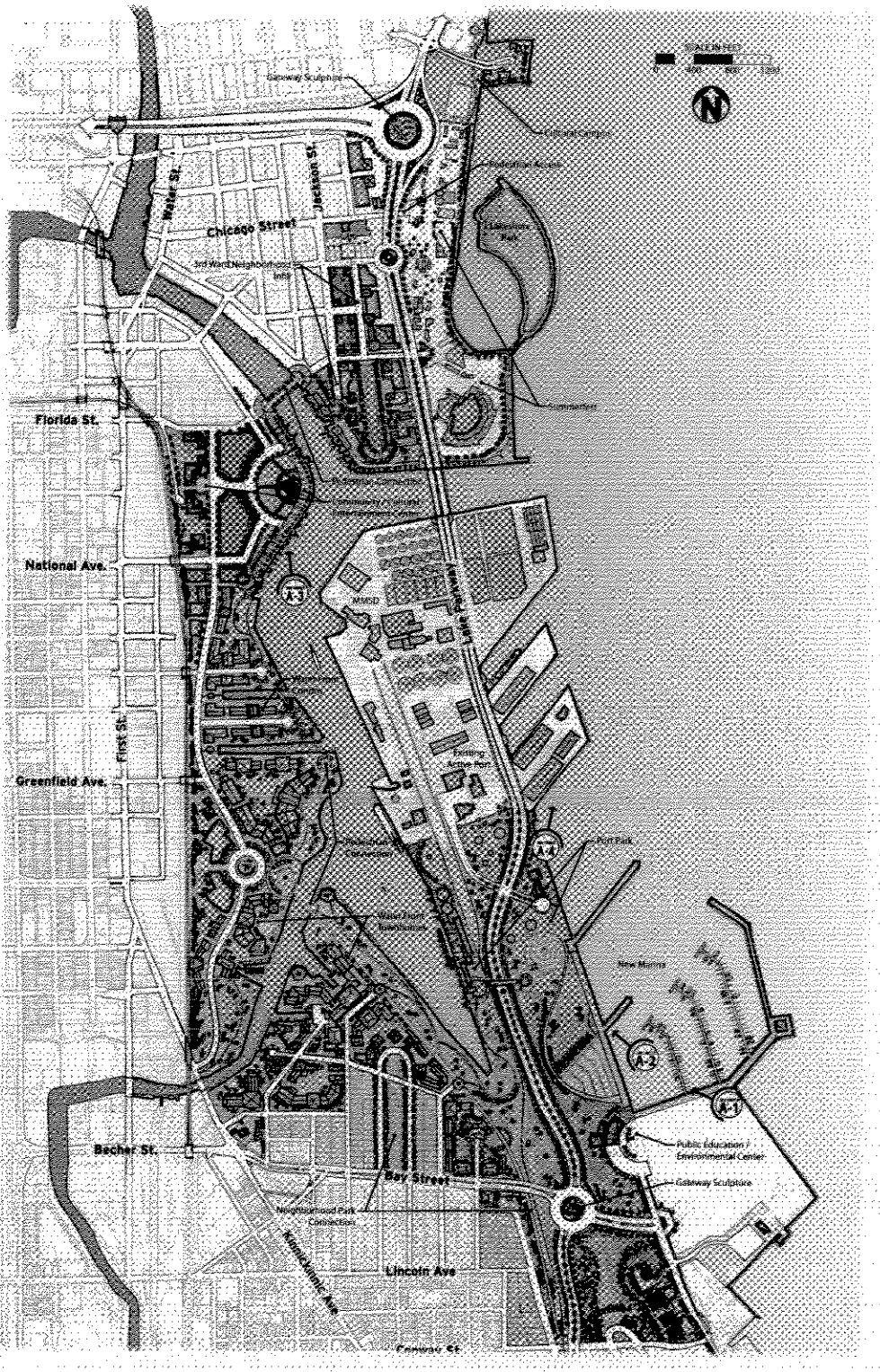
BRIDGE o...

harbor

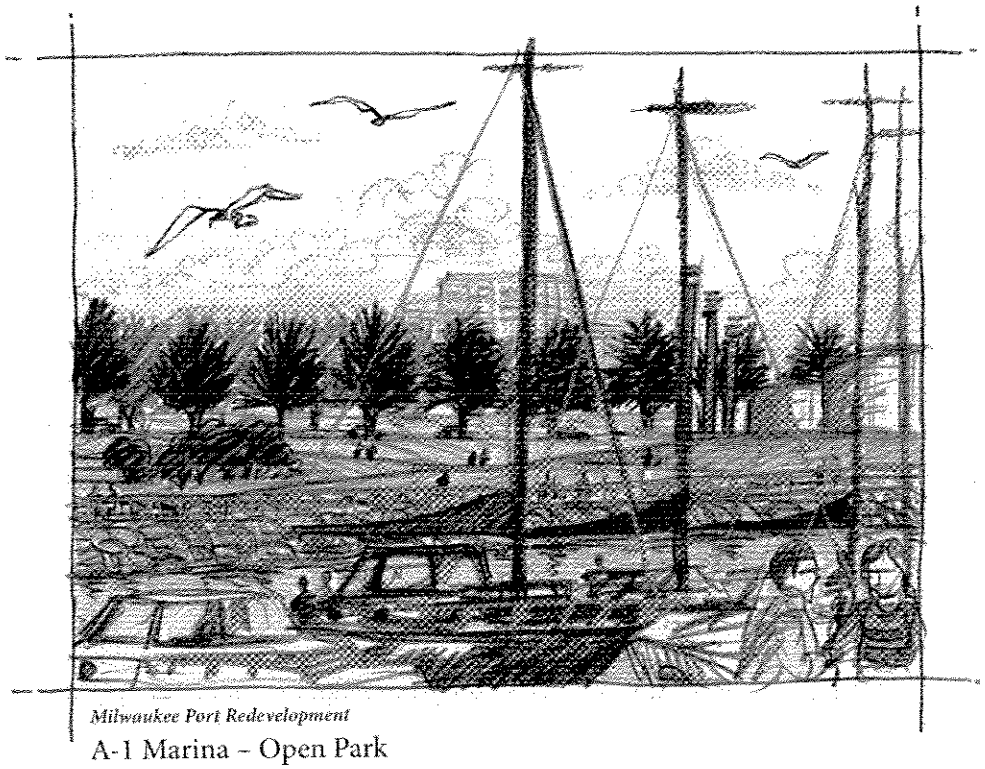
design sketchbook

HNTB

Illustrative Site Plan | ***Concept A: Maximizing Public Benefit***

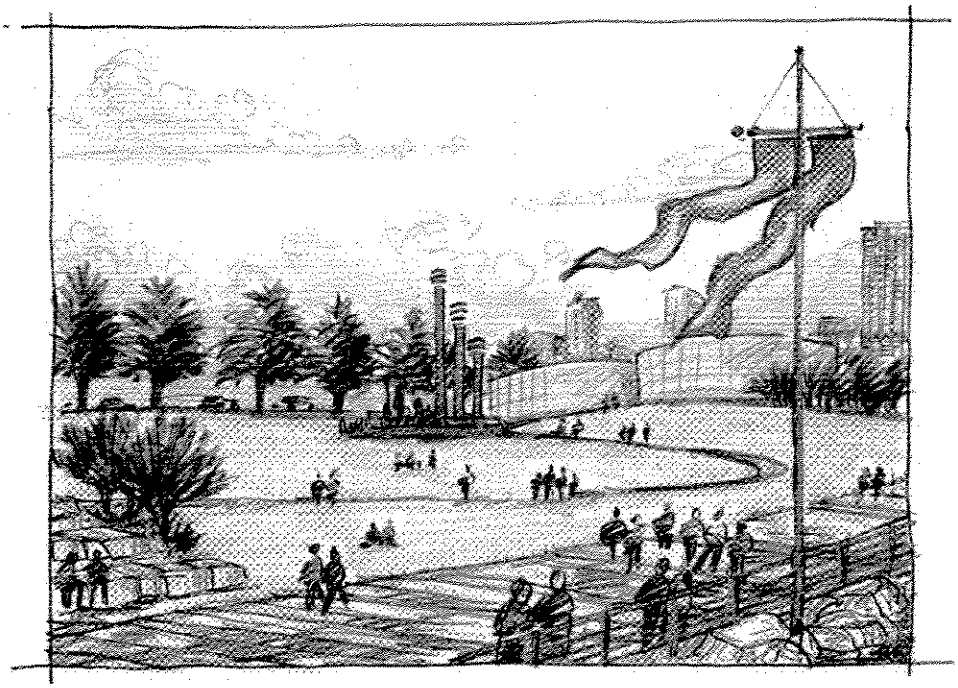


Supporting Sketches | ***Concept A: Maximizing Public Benefit***



Milwaukee Port Redevelopment

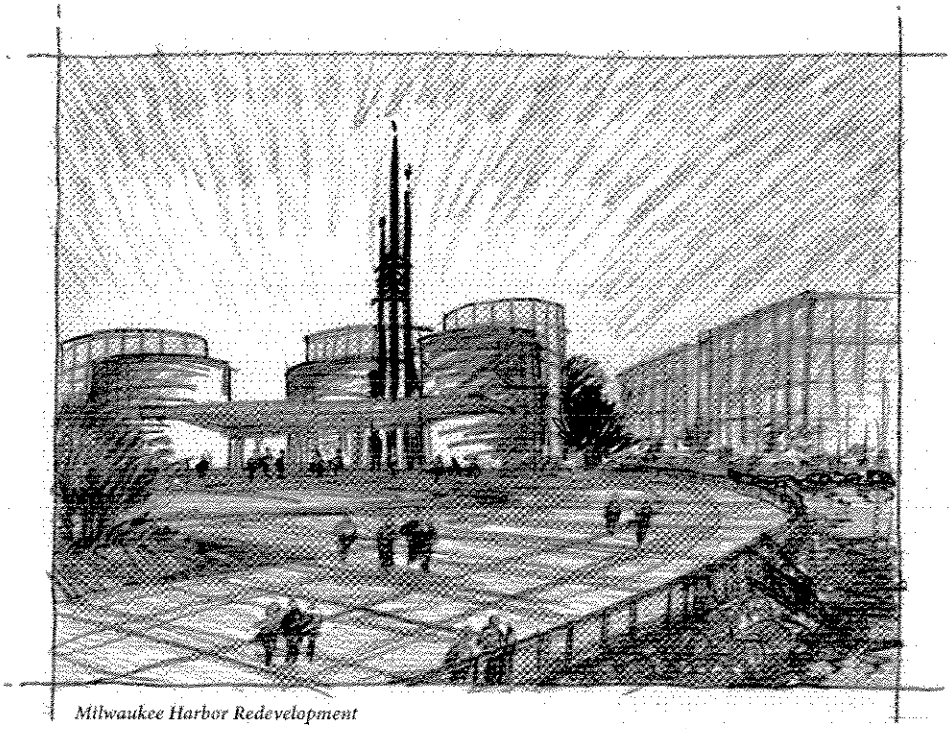
A-1 Marina – Open Park



Milwaukee Port Redevelopment

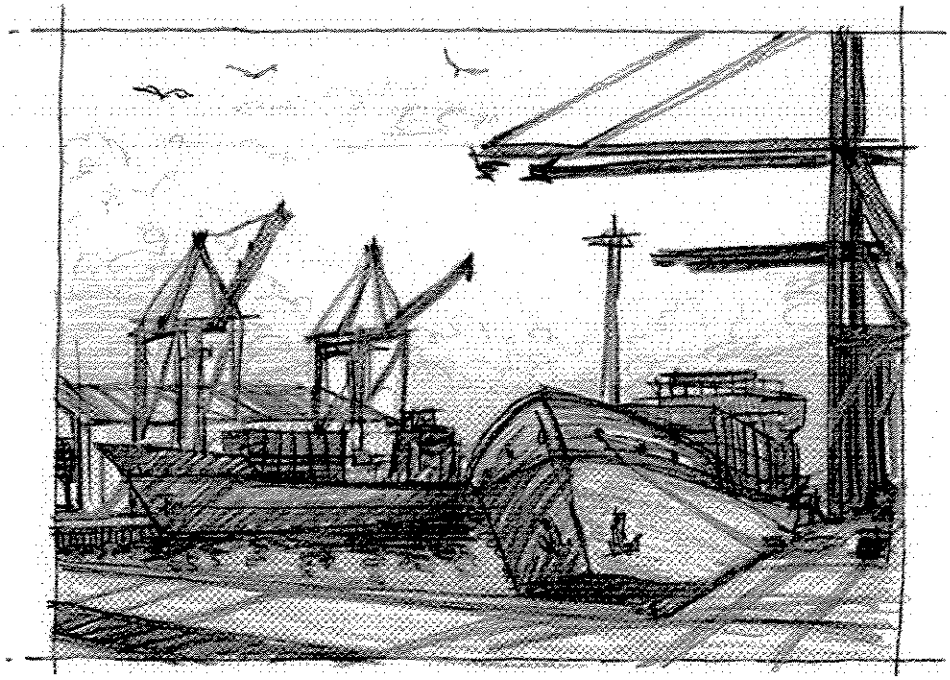
A-2 Passive Park – Open Space

Supporting Sketches | ***Concept A: Maximizing Public Benefit***



Milwaukee Harbor Redevelopment

A-3 Community Center



Milwaukee Harbor Redevelopment

A-4 Consolidated Port